



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/735,733	12/16/2003	Yoichi Motoori	032159	3637

38834 7590 02/24/2006

WESTERMAN, HATTORI, DANIELS & ADRIAN, LLP
1250 CONNECTICUT AVENUE, NW
SUITE 700
WASHINGTON, DC 20036

EXAMINER

BRAHAN, THOMAS J

ART UNIT PAPER NUMBER

3654

DATE MAILED: 02/24/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/735,733

Applicant(s)

MOTOORI ET AL.

Examiner

Thomas J. Brahan

Art Unit

3654

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 06 January 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 14-26 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 14-26 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

Art Unit: 3654

1. The following is a quotation of the second paragraph of 35 U.S.C. § 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which applicant regards as his invention.

2. Claims 18 and 20-26 are rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. In claim 18, the limitation "further comprising an opening is formed at a top of the elevating space" appears to be grammatically incomplete and is confusing.

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. § 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirement of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

4. The following is a quotation of 35 U.S.C. § 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. § 103, the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 C.F.R. § 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of potential 35 U.S.C. § 102(f) or (g) prior art under 35 U.S.C. § 103.

5. Claims 14, 15 and 18 are rejected under 35 U.S.C. § 102(b) as being anticipated by Iwasaki. Figures 2 and 7 of Iwasaki show an overhead traveling carriage system comprising:

an overhead traveling carriage (9a) which runs along a running rail (9) and conveys an article (2),

a stocker (10) which delivers and receives the article to and from said overhead traveling carriage, and a plurality of processing devices (3-1 through 3-4 and others) which receive the article,

wherein the stocker includes an elevating space (the operating area of lift stage 10b and loader 10c) in which a platform (of the lift stage 10b) is raised or lowered,

Art Unit: 3654

wherein the stocker includes a storage space in which a plurality of shelves (10g) are provided in a vertical direction to store said article,

wherein the elevating space is disposed nearer to a running path of the overhead traveling carriage than is the storage space, as viewed from above,

wherein said overhead traveling carriage and the running rail are disposed above the stocker.

The stocker (10) is adjacent the processing devices (3-1 through 3-4) as to have short processing times, as recited in claim 15. There is an opening formed at the top of the elevating space, as recited in claim 18.

6. Claims 14, 15, 17 and 19 are rejected under 35 U.S.C. § 102(e) as being anticipated by Kim. Figure 1 of Kim shows an overhead traveling carriage system comprising:

an overhead traveling carriage (22a) which runs along a running rail (18a) and conveys an article,

a stocker (102) which delivers and receives the article to and from said overhead traveling carriage, and a plurality of processing devices (100-100e) which receive the article,

wherein the stocker includes an elevating space (above 16a) in which a platform (the flat end effector of the transfer robot in the transfer chamber) is raised or lowered,

wherein the stocker includes a storage space (by definition) in which a plurality of shelves are provided in a vertical direction to store said article,

wherein the elevating space is disposed nearer to a running path of the overhead traveling carriage than is the storage space, (as the running space is directly above the elevating space) as viewed from above,

wherein said overhead traveling carriage and the running rail are disposed above (at a higher altitude) the stocker.

The stocker (102) is adjacent the processing devices (100-100e) as to have short processing times, as recited in claim 15. The elevating space (above 16a) is immediately below the running rail (18a), as recited in claim 17. A longitudinal direction of the stocker (102) is orthogonal to the running direction of the traveling carriage, as recited in claim 19.

7. Claims 14-17 and 19 are rejected under 35 U.S.C. § 102(e) as being anticipated by Lan et al. Figures 7 and 8 of Lan et al show the load ports for the stockers and the processing units for use with the arrangements of the its prior art. The prior art has overhead traveling carriages (34) on running rails (18a), and a stocker (30) which includes an elevating space (an exterior elevating space) in which a platform (58) is raised or lowered, wherein the stocker includes a storage space (by definition). The elevating space is disposed nearer to a running path of the overhead traveling carriage than is the storage space, (as the running space is directly above the elevating space) with the running rail are disposed above (at a higher altitude) the stocker. The stocker (30) is adjacent the processing devices (26), as recited in claim 15, and in a gap between processing devices (including processing devices from other bays) as recited in claim 16. The elevating space is immediately below the running rail, as recited in claim 17. A longitudinal direction of the stocker (30) is orthogonal to the running direction of the

Art Unit: 3654

traveling carriage, as recited in claim 19.

8. Claim 16 is rejected under 35 U.S.C. § 103(a) as being unpatentable over Kim in view of Watanabi et al. Kim shows the basic claimed overhead traveling carriage system, as detailed above, but varies from claim 16 as the stocker is at the end of the processing line instead of in a gap. Figure 2 of Watanabe et al shows a similar production arrangement with the stockers (6) centrally located along a main supply path. It would have been obvious to one of ordinary skill in the art at the time the invention was made by applicant to modify the stocker locations of Kim by locating them centrally, along a main supply line, for ease of restocking, as taught by Watanabi et al.

9. Claims 18 and 20 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Lan et al in view of Chao. Lan et al shows the basic claimed overhead traveling carriage system, but varies from claim 18 by not having a structure forming an opening at the top of the elevating space. Chao shows a similar system for a load port that includes four sensor plates (62, 64, 66 and 68) to guide the lowering of the cassette from the OHT. It would have been obvious to one of ordinary skill in the art at the time the invention was made by applicant to modify the load port of Lan et al by providing it with four sensor plates, for accurate lowering from the OHT, as taught by Chao. The four sensor plates form an opening in the elevating space. The stocker (30) of Lan et al is in a gap between processing devices (including processing devices from other bays) as recited in claim 20.

10. Claims 21-25 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Iwasaki in view of JA 4-80107. Iwasaki shows the basic claimed overhead traveling carriage system, as detailed above, but varies from claim 21 by not showing the details of the lift stage (10b) as to have it engage the bottom surface of the article. JA '107 shows a similar automated lift stage (31) with an engagement member (36) engaging the bottom surface of the article (60).s It would have been obvious to one of ordinary skill in the art at the time the invention was made by applicant to provide the lift stage (10b) of Iwasaki with an engagement member that engages the bottom surface of the articles, for smooth transfer, as taught by JA '107. The engagement members of JA '107 include guide surfaces (37) on the platform, as recited in claims 22. The shelves of JA '107 have follower rollers, as recited in claim 23. Note that only one side of each shelf has driven tracks and rollers, as shown in figure 2. The transfer devices (36) of JA '107 is in a central portion of the platform between the guide surfaces, as recited in claim 24.

11. Claims 25 and 26 would be allowable if rewritten in independent form including all the limitations of the base claim and the intervening claims and rewritten to avoid the rejection under 35 U.S.C. § 112.

12. Applicant's remarks in the amendment filed January 6, 2006, have been fully considered, but are deemed moot in view of the above new rejections. The amendment necessitated the new grounds, accordingly, THIS ACTION IS MADE FINAL. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set

Art Unit: 3654

forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

13. An inquiry concerning this communication or earlier communications from the examiner should be directed to Thomas J. Brahan whose telephone number is (571) 272-6921. The examiner's supervisor, Ms. Katherine Matecki, can be reached at (571) 272-6951. The new fax number for all patent applications is (571) 273-8300. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Questions regarding access to the Private PAIR system, should be directed to the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Thomas J. Brahan
Primary Examiner
Art Unit 36544